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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/606,692	06/26/2003	Ali Behboodian	CE10171J	6281

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EXAMINER	
PATEL, HEMANT SHANTILAL	
ART UNIT	**PAPER NUMBER**
2614	

DATE MAILED: 04/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/606,692	BEHBOODIAN ET AL.	
	Examiner	Art Unit	
	Hemant Patel	2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 June 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claim 5 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for speaker record decision signal generated as a function of "the stream of information samples" (Fig. 3, item 324) derived from "the first stream of encoded information frames" (Fig. 3, item 302), does not reasonably provide enablement for "generated as a function of the additional stream of encoded information frames". The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims. The specification (Pg. 9, ll. 8-23) describes that speaker record decision signal is set only from the presence or absence of speech detected in stream of decoded information frames that are the result of decoding encoded information frames received from the far end.

3. Claim 9 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for microphone record decision signal generated as a function of "the stream of information samples" (Pg. 9, ll. 32-33), does not reasonably provide enablement for "the first stream of encoded information frames or the additional stream of encoded information frames or a stream samples decoded from the first stream of encoded information frames". The specification does not enable any person

skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims. The specification (Pg. 9, ll. 31-Pg. 10, ll. 3) describes that microphone record decision signal is set only from the presence or absence of speech detected in the stream of information samples received from the near end user.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 4-10, 12-14, 16-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Haimi-Cohen (US Patent No. 6,233,320 B1).

Regarding claim 1, Haimi-Cohen teaches of a method of full-duplex recording for a communications handset comprising steps of:

receiving a first stream of encoded information frames (Fig. 4, output from channel decoder 62);

receiving a stream of information samples (Fig. 4, speech sample input to speech encoder 58);

encoding the stream of information samples to generate an additional stream of encoded information frames (Fig. 4, output from speech encoder 58); and

generating a single stream of encoded information frames from the first stream of encoded information frames and the additional stream of encoded information frames (col. 7, ll. 6-8; Fig. 5; each frame stored in memory includes individually recorded transmission and reception speech packets).

Regarding claims 4, 5, 6, Haimi-Cohen teaches of using voice activity detector to detect the absence of voice (silence) in a frame received from the far end (frames originally destined for the speaker of the device) and generating a skip signal to bypass the decoding of such frame (col. 8, ll. 32-39) during playback.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to further modify Haimi-Cohen to use such voice activity detector to detect the absence of voice (silence) in a frame received from the far end and generate a skip signal (speaker record decision signal) to bypass such frame during recording. The motivation to do so would be to skip storing this kind of frames with no useful information and hence save the memory resource, a problem acknowledged by Haimi-Cohen (Haimi-Cohen, col. 7, ll. 6-14).

Regarding claim 7, Haimi-Cohen further teaches of generating stream of samples decoded from the first stream of encoded information frames (Fig. 4, output from speech decoder 64). Further, refer to rejection for claim 4.

Regarding claims 8, 9, 10, Haimi-Cohen teaches of using voice activity detector to detect the absence of voice (silence) in a frame received from the near end user (frames originally received from the microphone of the device) and generating a skip signal to bypass the decoding of such frame (col. 8, ll. 32-39) during playback.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to further modify Haimi-Cohen to use such voice activity detector to detect the absence of voice (silence) in a frame received from the near end and generate a skip signal (microphone record decision signal) to bypass such frame. The motivation to do so would be to skip storing this kind of frames with no useful information and hence save the memory resource, a problem acknowledged by Haimi-Cohen (Haimi-Cohen, col. 7, ll. 6-14).

Regarding claims 12, 13, Haimi-Cohen teaches of a method, further comprising steps of:

retrieving a first recorded encoded information frame from the single stream of recorded encoded information frames (Fig. 4, receive speech packets from non volatile memory 110 to speech decoder 114);

decoding the first recorded encoded information frame to generate a first decoded information frame (Fig. 4, speech samples from speech decoder 114);

retrieving an additional recorded encoded information frame from the single stream of recorded encoded information frames (Fig. 4, transmit speech packets from non volatile memory 110 to speech decoder 112);

decoding the additional recorded encoded information frame to generate an additional decoded information frame (Fig. 4, speech samples from speech decoder 112); and

generating a playback information frame from the first decoded information frame and the additional decoded information frame (Fig. 4, output from mixer 120).

Regarding claims 14, Haimi-Cohen teaches of concatenating and storing receive speech packet (frame) and transmit speech packet (frame) in a combined frame (col. 7, ll. 6-8). Haimi-Cohen further teaches of using a single decoder retrieving and decoding these packets individually one after another from a single frame and thus outputting the decoded information frames (Fig. 4, output of speech samples from speech decoder in conversation playback modules 106) one after another (concatenating) as part of a single speech sample frame (col. 9, ll. 38-42).

Regarding claims 16, Haimi-Cohen teaches of converting the playback information frame to a sensible signal (col. 6, ll. 43-44).

Regarding claim 17, Haimi-Cohen teaches of a full duplex recorder for a communications device comprising:

an encoder for receiving a stream of information samples and for generating a first stream of encoded information frames (Fig. 4, item 58); and

an information combiner coupled to the encoder for receiving an additional stream of encoded information frames and the first stream of encoded information frames to generate a single stream of encoded information frames (Fig. 4, item 110; Fig. 5, each frame contains both receive and transmit packets col. 7, ll. 6-8).

Regarding claim 18, Haimi-Cohen teaches of the full duplex recorder further comprising a decoder for receiving the additional stream of encoded information frames and for generating a stream of decoded information frames (Fig. 4, item 64).

Regarding claim 19, Haimi-Cohen teaches of the full duplex recorder further comprising a memory coupled to the information combiner for storing the single stream

of encoded information frames (col. 7, ll. 6-8; memory 110 itself combines and stores information streams).

Regarding claim 20, Haimi-Cohen further teaches of the full duplex recorder further comprising a playback decoder (col. 9, ll. 39-40) coupled to the memory (Fig. 4, item 110) for retrieving the single stream of encoded information frames and for generating a stream of playback frames from the single stream of encoded information frames (col. 6, ll. 35-44).

Regarding claim 21, refer to rejection for 5 and claim 18.

Regarding claim 22, refer to rejection for 6 and claim 21.

Regarding claim 23, refer to rejection for 9 and claim 17.

Regarding claim 24, refer to rejection for 10 and claim 23.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 2, 3, 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haimi-Cohen as applied to claims 1, 10 above, and further in view of Takahashi (US Patent No. 6,449,352 B1).

Regarding claim 2, Haimi-Cohen does not teach of storing a flag in an encoded information frame.

However, in the same field of endeavor, Takahashi teaches of trick mode flag (Fig. 19b) in each packet (frame) of sound data.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Haimi-Cohen to include special playback data like trick mode flag as taught by Takahashi for special trick playback of sound (Takahashi, Col. 1, ll. 26).

Regarding claim 3, Haimi-Cohen teaches of storing the single stream of encoded voice frames in memory (col. 7, ll. 6-8).

Regarding claim 11, refer to rejection for 2 and claim 10.

9. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Haimi-Cohen as applied to claim 12 above, and further in view of Miura (US Patent No. 5,889,838).

Regarding claim 15, Haimi-Cohen does not teach of buffering the playback information frame.

However, in the same field of endeavor, Miura teaches of buffering digitized voice signal data in a buffer memory (col. 1, ll. 55).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Haimi-Cohen to include buffering digitized voice signal data in a buffer memory as taught by Miura so that "When the data are below a predetermined silence level, the data stored in the buffer memory are discarded, and the silent portion is cut off" (Miura, Col. 1, ll. 55-57) "saving waste of reproduction time by reproducing the silent portion" (Miura, col. 1, ll. 49-50).

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hein (US Patent No. 6,580,903 B2) Circuit And Method For Recording And Playing Back Voice And Other Sounds In Digital Mobile Radio Devices

Katagishi (US Patent No. 6,408,193 B1) Cellular Telephone

White (US Patent No. 6,370,245 B1) Full Duplex Communication Circuits With Bilateral Hybrid And Balanced Impedance Configurations

Imura (US Patent Application Publication No. 2001/0016491 A1) Function Limiting Method For telephone Communication Terminal, Telephone Communication Method, Telephone Communication Terminal And Repeating Center Equipment

Cannon (US Patent No. 6,430,270 B1) Automatic Conversational Record

Hatanaka (US Patent No. 5,084,788) PCM Signal Reproducing/Recording Apparatus

Doddington (US Patent No. 4,696,039) Speech Analysis/Synthesis System With Silence Suppression

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hemant Patel whose telephone number is 571-272-8620. The examiner can normally be reached on 8:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang can be reached on 571-272-7547. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hemant Patel
Examiner
Art Unit 2614

HSP

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SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600